

PROJECT DESCRIPTION  
GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF PEDESTRIAN SIGNALS, ASSOCIATED SIGNS AND HATCHED CROSSWALKS FOR ALL FOUR LEGS OF THE INTERSECTION OF MD 28 AT MD 189. MD 28 IS ASSUMED TO RUN IN A EAST/ WEST DIRECTION IN MONTGOMERY COUNTY.

INTERSECTION OPERATION

AN ALTERNATE PEDESTRIAN PHASE WILL BE ADDED FOR PHASE 4 AND 8.

SPECIAL NOTES

1. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

PROJECT CONTACTS:

MR. LEE STARKLOFF, ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 513-7318  
MR. RALEIGH MEDLEY, ASSISTANT DISTRICT ENGINEER- MAINTENANCE  
PHONE: (301) 513-7336  
MR. AUGIE REBISH, UTILITY ENGINEER - UTILITY  
PHONE: (301) 513-7350  
MR. RICHARD L. DAFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630  
MR. ROBERT SNYDER, ASSISTANT CHIEF TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7631  
MR. ED RODENHIZER, CHIEF OF SIGNAL SHOP  
PHONE: (410) 787-7650  
MR. BOB GONZALES, MONTGOMERY COUNTY TRANSPORTATION MANAGEMENT CENTER  
PHONE: (240) 777-8761

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

| ITEM NO. | DESCRIPTION  | UNITS                | QUANTITY             |
|----------|--|----------------------|----------------------|
| 9000     | FLAT SHEET ALUMINUM SIGNS CONSISTING OF:<br>PEDESTRIAN EDUCATION SIGN R10-4(1) MOD<br>GUIDE SHIELD ASSEMBLY (30"X51")<br>GUIDE SHIELD ASSEMBLY (48"X75") | SF<br>EA<br>EA<br>EA | 99.25<br>4<br>2<br>3 |

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

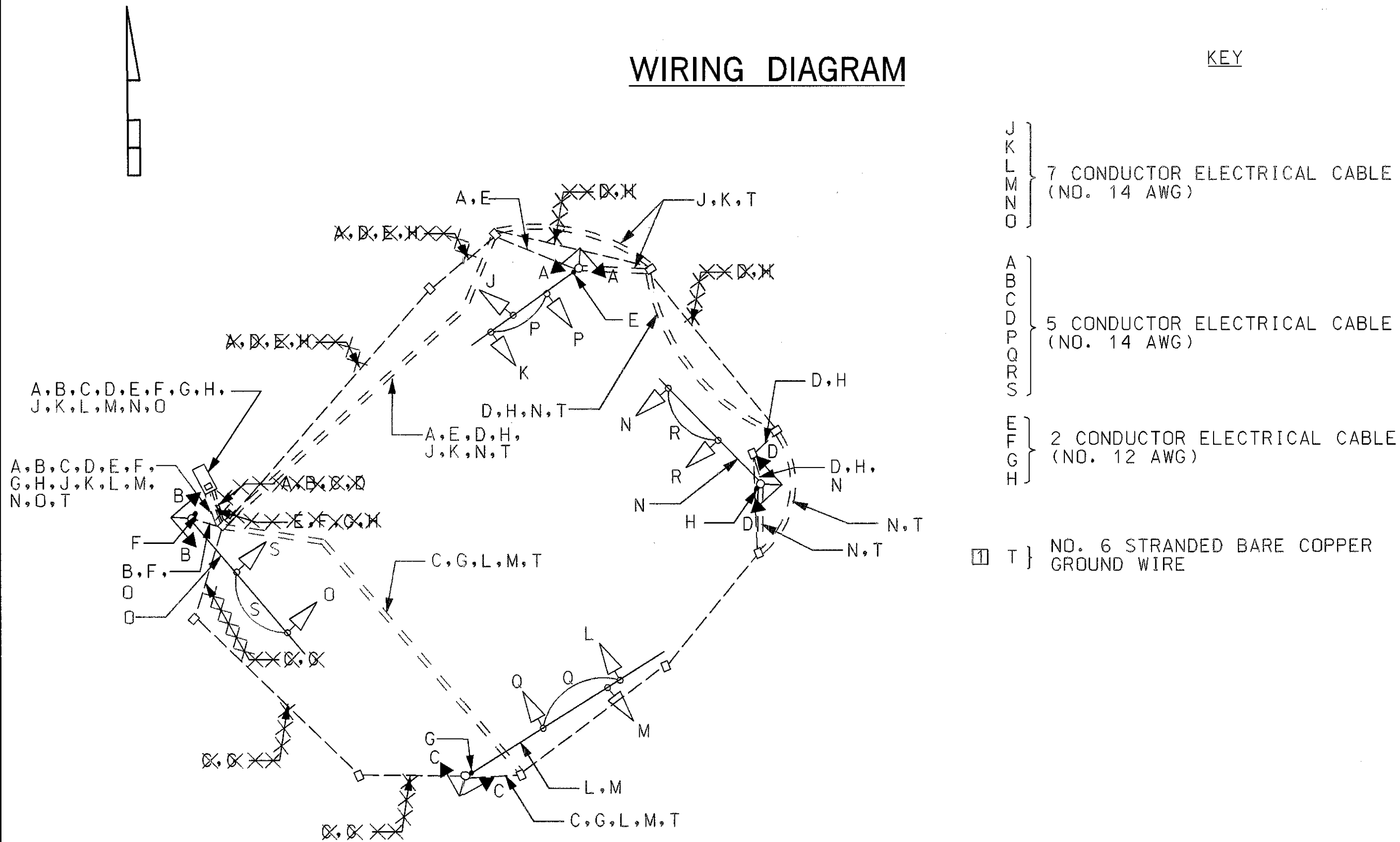
| ITEM NO. | DESCRIPTION   | UNITS | QUANTITY |
|----------|---|-------|----------|
| 1001     | MAINTENANCE OF TRAFFIC  | EA    | 1        |
| 5004     | 12 IN WHITE HEAT APPLIED PERFORMED THERMORE PAVEMENT MARKING  | LF    | 1150     |
| 5008     | REMOVE EXISTING PAVEMENT MARKING - ANT WIDTH  | LF    | 250      |
| 6001     | F&I DEPRESSED CURB AND GUTTER   | LF    | 20       |
| 8010     | FURNISH AND INSTALL PEDESTRIAN SIGNAL HEAD SECTION  | EA    | 16       |
| 8032     | FURNISH AND INSTALL PUSHBUTTON AND SIGN<br>R10-4(1), 9"X12" - PUSHBUTTON TO CROSS GREAT FALLS ROAD. | EA    | 4        |
| 8048     | REMOVE AND DISPOSE MATERIAL AND EQUIPMENT PER EA PER ASSIGNMENT                                     | EA    | 1        |
| 8053     | FURNISH AND INSTALL 4 INCH PVC SCHEDULE 80 CONDUIT - TRENCHED                                       | LF    | 150      |
| 8076     | INSTALL GROUND MOUNTED SIGN   | SF    | 4        |
| 8084     | FURNISH AND INSTALL ELECTRICAL CABLE-2 CONDUCTOR (NO 14 AWG)  | LF    | 1300     |
| 8086     | FURNISH AND INSTALL ELECTRICAL CABLE-5 CONDUCTOR (NO 14 AWG)  | LF    | 550      |
| 8087     | FURNISH AND INSTALL ELECTRICAL CABLE-7 CONDUCTOR (NO 14 AWG)  | LF    | 925      |
| NEG.     | REMOVE AND DISPOSE OF EXISTING ADA RAMP   | LF    | 20       |
| 8062     | FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE                                      | LF    | 570      |
| 8069     | FURNISH AND INSTALL 4 INCH PVC SCHEDULE 80 CONDUIT - SLOTTED  | LF    | 420      |
| NEG.     | REMOVE AND REPLACE EXISTING BRICK SIDEWALK  | SF    | 112      |
| NEG.     | REMOVE AND DISPOSE OF EXISTING SIGNAL WIRING  | LS    | 1        |
| NEG.     | REPLACE BRICK PAVERS  | SF    | 16       |

C. MATERIALS TO BE REMOVED BY THE CONTRACTOR.

ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME PROPERTY OF THE CONTRACTOR.

| CATEGORY NO. | DESCRIPTION | UNITS | QUANTITY |
|--------------|-------------|-------|----------|
|              | NONE        |       |          |

WIRING DIAGRAM



PHASE CHART

|  | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PHASE 1 AND 5                                  | +GR  | +GR  | R    | +GR  | +GR  | R    | R    | R    | R    | R    | DW   | DW   | DW   | DW   | DW   | DW   | DW   | DW   |
| 1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PHASE 1 AND 6                                  | +GG  | +GG  | G    | R    | R    | R    | R    | R    | R    | R    | DW   | DW   | DW   | DW   | DW   | DW   | DW   | DW   |
| 1 AND 6 CHANGE                                 | +Y/G | +Y/G | Y    | R    | R    | R    | R    | R    | R    | R    | DW   | DW   | DW   | DW   | DW   | DW   | DW   | DW   |
| PHASE 2 AND 5                                  | R    | R    | R    | +GG  | +GG  | G    | R    | R    | R    | R    | DW   | DW   | DW   | DW   | DW   | DW   | DW   | DW   |
| 2 AND 5 CHANGE                                 | R    | R    | R    | +Y/G | +Y/G | Y    | R    | R    | R    | R    | DW   | DW   | DW   | DW   | DW   | DW   | DW   | DW   |
| PHASE 2 AND 6                                  | G    | G    | G    | G    | G    | G    | R    | R    | R    | R    | WK   | WK   | WK   | WK   | DW   | DW   | DW   | DW   |
| PED CLEARANCE                                  | G    | G    | G    | G    | G    | G    | R    | R    | R    | R    | FLDW | FLDW | FLDW | FLDW | DW   | DW   | DW   | DW   |
| 2 AND 6 CHANGE                                 | Y    | Y    | Y    | Y    | Y    | Y    | R    | R    | R    | R    | DW   | DW   | DW   | DW   | DW   | DW   | DW   | DW   |
| PHASE 4 AND 8                                  | R    | R    | R    | R    | R    | R    | G    | G    | G    | G    | DW   | DW   | DW   | DW   | DW   | DW   | DW   | DW   |
| 4 AND 8 CHANGE                                 | R    | R    | R    | R    | R    | R    | Y    | Y    | Y    | Y    | DW   | DW   | DW   | DW   | DW   | DW   | DW   | DW   |
| PHASE 4 AND 8 ALT                              | R    | R    | R    | R    | R    | R    | G    | G    | G    | G    | DW   | DW   | DW   | WK   | WK   | WK   | WK   | WK   |
| PED CLEARANCE                                  | R    | R    | R    | R    | R    | R    | G    | G    | G    | G    | DW   | DW   | DW   | FLDW | FLDW | FLDW | FLDW | FLDW |
| 4 AND 8 ALT CHANGE                             | R    | R    | R    | R    | R    | R    | Y    | Y    | Y    | Y    | DW   | DW   | DW   | DW   | DW   | DW   | DW   | DW   |
| FLASHING OPERATION                             | FL/Y | FL/Y | FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/R | FL/R | FL/R | DARK | DARK | DARK | DARK | DARK | DARK | DARK | DARK |

RED LINE REVISION 3/03



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION  
GENERAL INFORMATION PLAN

MD 28 (W. MONTGOMERY AVENUE) AND  
MD 189 (GREAT FALLS ROAD)



SABRA, WANG & ASSOCIATES, INC.  
1504 JOH AVENUE  
SUITE 100  
BALTIMORE, MD 21227  
WWW.SABRA-WANG.COM

|                         |                       |                       |           |
|-------------------------|-----------------------|-----------------------|-----------|
| DRAWN BY: JW            | F.A.P. NO. M0619A5J   | TS NO. 316C           | SHEET NO. |
| CHECKED BY: JAILLON JR. | S.H.A. NO. MONTGOMERY | T.J.M.S. NO. F276     | 2 OF 2    |
| SCALE: NTS              | COUNTY: MONTGOMERY    | LOG MILE: 15002821.73 |           |
| DATE: Sept., 2002       |                       |                       |           |